



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5287/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Jasper Kelwin Spiers

### 1.3. Property details

Property: Mining Lease 08/470  
Local Government Authority: Shire of Exmouth  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
35		Mechanical Removal	Sand and Rock Mining

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 27 June 2013

## 2. Background

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** Beard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database):

662: Hummock grasslands, shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & *Triodia basedowii*.

A Level 1 Flora, Vegetation and Fauna Assessment of the application area was undertaken by AECOM (2012). AECOM (2012) identified 5 vegetation units within the application area:

1. GTOS - *Grevillea*, *Acacia* and *Banksia* Shrubland;
2. ASHG - *Acacia* shrubland;
3. AGTOS - *Hakea*, *Acacia* and *Grevillea* Shrubland;
4. AaTOS - *Acacia* Scrub; and
5. ChLOW - *Corymbia* low Woodland

**Clearing Description** Jasper Kelwin Spiers is proposing to clear up to 35 hectares of native vegetation for sand and rock mining. Clearing is proposed in 5 hectare lots with each lot progressively rehabilitated.

**Vegetation Condition** Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To

Pristine: No obvious signs of disturbance (Keighery, 1994).

**Comment** The application area is located within the Carnarvon region of Western Australia and is situated approximately 6 kilometres north of Exmouth.

## 3. Assessment of application against Clearing Principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

**Comments** **Proposal is not likely to be at variance to this Principle**

The proposed clearing is located approximately 6 kilometres north of Exmouth in the Cape Range subregion of the Carnarvon Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database).

A Level 1 flora, vegetation and fauna assessment of the application area was undertaken by AECOM (2012). This survey identified 56 flora species from 40 genera and 18 families within the application area (AECOM, 2012). Vegetation within the application area ranges from good to pristine condition (Keighery, 1994). According to available databases there are no Priority Ecological Communities or Threatened Ecological Communities within the application area (GIS Database).

AECOM (2012) identified three Priority Flora species within the application area. *Acacia alexandri* (P2) was recorded as a dominant component of vegetation unit AaTOS on red sandy clay flats. It was not recorded elsewhere in the survey area. One individual *Acanthocarpus rupestris* (P2) was recorded from the sand dune community GTOS. *Daviesia pleurophylla* (P2) was recorded scattered throughout vegetation unit GTOS, which was a fairly uniform vegetation type recorded across sand dunes in the survey area (AECOM, 2012).

Advice from DEC (2012) identified that *Acanthocarpus rupestris* is known from 9 locations through the Cape Range, but has not been recorded north of Exmouth. The application area therefore represents a range extension for this uncommon species. DEC (2012) identified that the proposed clearing would be unlikely to significantly impact upon the remaining Priority Flora species.

An additional flora survey was conducted by AECOM (2013) targeting *Acanthocarpus rupestris* and *Daviesia pleurophylla*. These species were targeted within the application area and the surrounding area as it was identified by DEC (2012) that these species may co-occur. The targeted search indicated that both Priority Flora species were relatively common in the local area within suitable habitat and that suitable habitat for these species was widespread outside of the application area (AECOM, 2013).

The application area is within the boundary of the Cape Range and adjacent Coastal Plain which is an approximately 182,600 hectare area on the Register of National Estate (GIS Database). This is an area of natural value and is an Environmentally Sensitive Area however the proposed clearing of 35 hectares is not likely to significantly impact the value of this area. As the proposed clearing is within the Cape Range and adjacent Coastal Plain conservation area care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A survey conducted by AECOM (2012) identified two conservation significant fauna species which were likely to occur within the study area: Montebello Worm-lizard, (*Aprasia rostrata* - Vulnerable EPBC and Schedule 1) and Cape Range Slider (*Lerista allochira* - Priority 3). A targeted survey was conducted for these species by AECOM (2013). Neither species was recorded over a total of 222 trap nights (AECOM, 2013).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** AECOM (2012)  
AECOM (2013)  
DEC (2012)  
Keighery (1994)  
GIS Database:  
- IBRA WA (regions – subregions)  
- Threatened Ecological Sites Buffered  
- Register of National Estate

**(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.**

**Comments Proposal is not likely to be at variance to this Principle**

A survey conducted by AECOM (2012) identified 2 fauna habitat types within the application area:

1. Shrubland and scrub over red sand dunes; and
2. Shrubland and scrub over sandy clay flats.

The fauna habitats within the application area are well represented regionally with Beard vegetation association 662 retaining approximately 99% of its pre-European vegetation extent (Government of Western Australia, 2013).

Based on a desktop assessment of the application area, AECOM (2012) identified 14 Threatened, Priority and Migratory fauna species which may have potential to utilise the application area. A field study undertaken on July 2012 recorded 25 fauna species including 18 birds, three mammals and four reptiles (AECOM, 2012). Two species of conservation significance were recorded: the Rainbow Bee-Eater (Migratory, EPBC Act) and the White-Bellied Sea-Eagle (Migratory, EPBC Act) (AECOM, 2012). However, both of these species are widely distributed and the application area is not likely to represent significant habitat for these species.

The desktop assessment by AECOM (2012) identified two conservation significant fauna species which were likely to occur within the study area: Montebello Worm-lizard, (*Aprasia rostrata* - Vulnerable EPBC and Schedule 1) and Cape Range Slider (*Lerista allochira* - Priority 3). A targeted survey was conducted for these species by AECOM (2013). Neither species was recorded over a total of 222 trap nights (AECOM, 2013). It is unlikely that the application area represents significant habitat for these species.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** AECOM (2012)  
AECOM (2013)

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments Proposal is not likely to be at variance to this Principle**

There are no records of Threatened Flora species within the application area (GIS Database). A flora survey of the application area conducted by AECOM (2012) did not locate any Threatened Flora species within the application area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** AECOM (2012)

GIS Database:  
- Threatened and Priority Flora

**(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.**

**Comments Proposal is not likely to be at variance to this Principle**

The critically endangered Cameron's Cave Troglobitic Threatened Ecological Community (TEC) is located 10 kilometres south of the area under application. At this distance the vegetation proposed to be cleared is not considered necessary for the maintenance of the Cameron's Cave Troglobitic Community (TEC).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database

- Threatened Ecological Sites Buffered

**(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

**Comments Proposal is not at variance to this Principle**

The application area is located within the Carnarvon Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Government of Western Australia (2013) reports that approximately 99.74% of the pre-European vegetation remains within the Carnarvon bioregion.

The vegetation in the application area has been broadly mapped as Beard vegetation association:

662: Hummock grasslands, shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & *Triodia basedowii*.

According to the Government of Western Australia (2013) approximately 99.64% of Beard vegetation association 662 remains within the Carnarvon bioregion (see table below).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Carnarvon	8,382,890	8,360,803	~99.74	Least Concern	~3.62
Beard vegetation associations - State					
662	284,795	282,125	~99.06	Least Concern	~1.86
Beard vegetation associations - Bioregion					
662	282,709	281,679	~99.64	Least Concern	~1.84

\* Government of Western Australia (2013)

\*\* Department of Natural Resources and Environment (2002)

The vegetation within the application area is not considered to be a remnant of native vegetation in an area that has been extensively cleared.

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** Department of Natural Resources and Environment (2002)

Government of Western Australia (2013)

GIS Database:

- IBRA WA (regions – subregions)

- Pre-European Vegetation

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments Proposal is not at variance to this Principle**

According to available databases there are no wetlands or watercourses within the application area (GIS Database). A survey conducted by AECOM (2012) did not identify any vegetation growing in association with wetlands or watercourses.

There is an ANCA wetland (Cape Range Subterranean Waterway) located 3.3 kilometres north east of the area under application (GIS Database) however considering that this wetland is described as a subterranean waterway it is unlikely that the vegetation to be cleared is growing in association with this wetland.

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** AECOM (2012)  
GIS Database:  
- Hydrography, linear  
- ANCA, Wetlands

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal is may be at variance to this Principle**

There is one soil type associated with the area proposed for clearing: Narrow Coastal Plain. Shallow loams on limestone with sands also overlying limestone with some red sand in dunes (Northcote et al., 1960-1968; GIS Database).

Given that part of the application area contains sandy soil types and is located within 2.2 kilometres of the coast, potentially exposing the area to prevailing winds, there may be some risk of wind erosion when vegetation is removed. In addition intense thunderstorms, cyclonic rain and run-off events are a feature of the Cape Range climate.

Based on the above, the proposed clearing may be at variance to this Principle however the implementation of a staged clearing condition will minimise this risk.

**Methodology** Northcote et al. (1960 -1968)  
GIS Database:  
- Soils, Statewide

**(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.**

**Comments Proposal is not likely to be at variance to this Principle**

The application area is located within the boundary of the Cape Range and adjacent Coastal Plain which is an approximately 182,600 hectare area on the Register of National Estate (GIS Database). This is an area of natural value and is an Environmentally Sensitive Area however the local area is highly vegetated and it is considered that the proposed clearing of 35 hectares is not likely to significantly impact the natural value of this Register of National Estate area.

The Bundegi C Class Coastal Park is located approximately 1.2 kilometres to the east of the application area (GIS Database). Given the distance to the reserve and considering the large amount of remaining native vegetation which remains uncleared in the local area, it is considered unlikely that the vegetation under application provides a significant buffer or ecological linkage to this conservation area.

As the proposed clearing is within the Cape Range and adjacent Coastal Plain conservation area care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to the conservation area as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Based on the above the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database:  
- DEC Tenure  
- Register of National Estate

**(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.**

**Comments Proposal is not likely to be at variance to this Principle**

The application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). According to available databases there are no wetlands or watercourses within the application area (GIS Database).

Given that the application area is not associated with any surface water expression it is unlikely that the clearing of vegetation will cause deterioration in the quality of surface or underground water.

Based on the above the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database:  
- Public Drinking Water Source Areas (PDWSAs)  
- Hydrography Linear

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposal is not likely to be at variance to this Principle**

According to available databases there are no wetlands or watercourses within the application area (GIS Database). Intense thunderstorms, cyclonic rain and run-off events are a feature of the Cape Range climate, however, the proposed clearing of 35 hectares is not likely to increase the incidence or intensity of these events.

Based on the above the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database:  
- Hydrography, linear

**Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.**

**Comments**

There is one Native Title Claim (WC97/28) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal sites of significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 15 October 2012 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

**Methodology** GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims - Registered with the NNTT

#### 4. References

- AECOM (2012) Preliminary Environmental Impact Assessment – Jasper Spiers Mining Tenement – Prepared for Jasper Spiers. Unpublished report dated September 2012.
- AECOM (2013) Targeted Flora and Fauna Survey – Prepared for Exmouth Civil. Unpublished report dated May 2013.
- DEC (2012) Advice provided to the assessing officer on significance of Priority Flora and Threatened Fauna - 13 November 2012
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

## 5. Glossary

### Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

### Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1 Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3 Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5 Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

#### Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

- EX Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W) Extinct in the wild:** A native species which:
- (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
  - (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN Endangered:** A native species which:
- (a) is not critically endangered; and
  - (b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU Vulnerable:** A native species which:
- (a) is not critically endangered or endangered; and
  - (b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

#### Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.
- (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

